

### **REMARKS**

This amendment is responsive to the Office Actions of April 5, 2006. Reconsideration and allowance of claims 1-17 are requested.

#### **The Office Action**

Claims 1-5, 7, and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fuderer (US 6,518,760) in view of Jevtic (US 2002/0169374).

Claim 6 stands rejected under 35 U.S.C. § 103 as being unpatentable over Fuderer in view of Jevtic, further in view of Leussler (US 5,945,826).

Claim 9 stands rejected under 35 U.S.C. § 103 as being unpatentable over Fuderer in view of Jevtic, further in view of Harvey (US 2002/0060567).

Claim 10 does not stand rejected on prior art and is understood to contain allowable subject matter.

#### **Synergy Coil**

Leussler (US 5,945,826), of record, at column 1, lines 21-38, discusses what the term "synergy coils" is understood to mean in the art. This section further refers the reader to Jensen (US 5,600,244) as being an exemplary, enabling example of a synergy coil. A portion of the Leussler description of a synergy coil has been paraphrased and added to the specification.

#### **The Claims Distinguish Patentably Over the References of Record**

**Claim 1** calls for an RF coil system in which at least two coil arrays are integrated into one coil former. Contrary to the Examiner's assertion in paragraph 3 of the Office Action, coil arrays **13, 16** of Fuderer are not integrated into one former. To the contrary, the transmission coil **13** is a body coil (column 6, lines 51, 54, 58, 60, etc.) As those of ordinary skill in the art are well aware, in a bore type scanner as illustrated in Fuderer, the whole body coil surrounds the bore and is well-displaced from the subject. By contrast, the other receiving coils **16** of Fuderer are surface coils (column 7, line 6). Surface coils, as is well-known to those of ordinary skill in the art, are positioned on the surface of the subject, i.e., well displaced from the whole-body coils. Moreover, whole-body coils are typically built into the bore of the scanner;

whereas, surface coils are typically applied, e.g., taped or strapped, to the surface of the patient before the patient enters the bore. Because whole-body coils and surface coils are used in such a different manner and positioned in such different locations, it is submitted that Fuderer does not, contrary to the Examiner's assertion, disclose or fairly suggest integrating the surface coil **16** and the whole-body coil **13** into one coil former.

The Examiner does not assert that Jevtic cures this shortcoming of Fuderer and, indeed, it does not. Accordingly, it is submitted that **claim 1 and claims 2, 7-9, and 11-14 dependent therefrom** distinguish patentably and unobviously over the references of record.

**Claim 3** calls for a local RF coil system which includes at least a first RF coil array and a second RF coil array integrated in a single, common coil former. Fuderer makes no suggestion that the whole-body coil **13** and the surface coil **16** can or should be incorporated into a common former. Indeed, because whole-body coils are typically built into the bore of a bore type scanner and surface coils are typically temporarily affixed to the surface of the subject, it is unclear why or how one would build the removable surface coils and, the permanent whole-body coils of Fuderer into a common former.

Claim 3 further calls for a local coil system including the first RF coil array to be optimized for SENSE or SMASH imaging and for another coil array which is optimized for a method of imaging different from the SENSE or SMASH methods both to be integrated into the common former. The local coil **16** of Fuderer includes only a single coil array. The whole-body coil **13** of Fuderer is not a local coil. Jevtic does not cure this shortcoming of Fuderer. Jevtic includes a phased-array type local coil in which all coils of the array are configured for SENSE or SMASH imaging. Thus, both Fuderer and Jevtic teach that if a local coil is provided, it should include coils for only the SENSE or SMASH imaging method. Neither teaches or fairly suggests that the surface coil should include an additional coil array for use with another imaging method.

Accordingly, it is submitted that **claim 3 and claims 4-6 and 15 dependent therefrom** distinguish patentably and unobviously over the references of record.

**Claim 10** has been placed in independent form. Because claim 10 does not stand rejected on prior art, it is submitted that **claim 10 and claims 16 and 17 dependent therefrom** are now in condition for allowance.

**Amended Drawings**

The applicants enclose an amended copy of Figure 1, in which blocks **16**, **17**, and **18** have been labeled. An early indication of the acceptance of the drawings is requested.

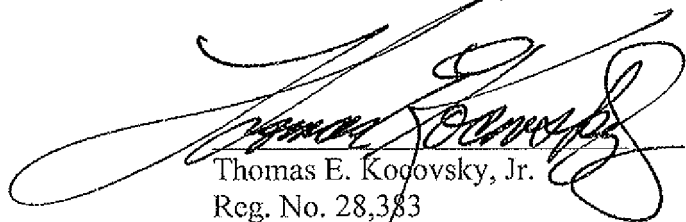
**CONCLUSION**

For the reasons set forth above, it is submitted that claims 1-17 (all claims) distinguish patentably and unobviously over the references of record. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, she is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,  
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A large, stylized handwritten signature in black ink, which appears to read "Thomas E. Kocovsky, Jr.", is written over the printed name and address.

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